

IN THE CLAIMS:

1. (original): A method of controlling a packet terminating call in a mobile communication system, comprising:

registering packet terminating call filtering information for at least one subscriber;

if a packet addressed to the subscriber as a destination is received, determining whether to set a terminating call of the received packet based on the registered packet terminating call filtering information; and

setting the terminating call according to a result of determination.

2. (original): The method of claim 1, wherein the packet terminating call filtering information includes information indicating whether to activate use of a packet terminating call filtering function.

3. (original): The method of claim 1, wherein the packet terminating call filtering information includes information indicating whether the packet terminating call filtering information includes a non-permission condition or a permission condition.

4. (original): The method of claim 1, wherein the packet terminating call filtering information includes packet pattern information.

5. (original): The method of claim 4, wherein the packet pattern information includes at least one of a specified source Internet protocol (IP), a specified protocol identifier (ID), and a destination port number.

6. (original): The method of claim 4, wherein the packet pattern information includes at least one of a plurality of packet attributes recorded in a header of a packet.

7. (original): The method of claim 6, wherein the packet attribute includes a source address and subnet mask.

8. (original): The method of claim 6, wherein the packet attribute includes a protocol number (IPv4) / next header (IPv6).

9. (original): The method of claim 6, wherein the packet attribute includes a destination port range.

10. (original): The method of claim 6, wherein the packet attribute includes a source port range.

11. (original): The method of claim 6, wherein the packet attribute includes an IPSec security parameter index (SPI).

12. (original): The method of claim 6, wherein the packet attribute includes a type of service (TOS) (IPv4) / a traffic class (IPv6) and mask.

13. (original): The method of claim 6, wherein the packet attribute includes a flow label (IPv6).

14. (original): The method of claim 1, wherein the packet terminating call filtering information is included in static information of a gateway general packet radio service (GPRS) support node (GGSN).

15. (original): The method of claim 1, wherein the step of registering the packet terminating call filtering information comprises:

receiving a packet terminating call filtering information message from a mobile terminal of the subscriber; and

registering the packet terminating call filtering information based on the received message.

16. (currently amended): The method of claim 1 ~~or 15~~, further comprising:

receiving a packet terminating call filtering information inquiry and/or update message from a mobile terminal of a subscriber;

inquiring and/or updating the registered packet terminating call filtering information based on the inquiry and/or update message; and
transferring a result of inquiry and/or update to the mobile terminal.

17. (original): The method of claim 1, wherein the step of registering the packet terminating call filtering information comprises:

authenticating a subscriber connected through the Internet;
receiving the packet terminating call filtering information message from the authenticated subscriber; and
registering the packet terminating call filtering information based on the received message.

18.(currently amended): The method of claim 1 ~~or 17~~, further comprising:

receiving a packet terminating call filtering information inquiry and/or update message from an authenticated subscriber;
inquiring and/or updating the packet terminating call filtering information based on the inquiry and/or update message; and
transferring a result of inquiry and/or update to the authenticated subscriber.

19. (original): An apparatus for controlling a packet terminating call in a mobile communication system, comprising:

a database which stores routing information and filtering information of a protocol data unit for a packet radio service;

a terminating call control section which controls a terminating call setting for the protocol data unit based on the routing information and the filtering information;

a message processing section which performs an inquiry and/or update of the filtering information based on an inquiry message and/or update message of the filtering information; and

an Internet protocol processing section which processes the protocol data unit and performs the terminating call setting procedure under control of the terminating call control section.

20. (original): The apparatus of claim 19, further comprising:

an agent for providing the inquiry message and/or update message of the filtering information from an Internet subscriber and/or a mobile terminal; and

an Internet host, connected between the agent and the Internet, for enabling the Internet subscriber and/or mobile terminal to connect to the agent.